



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 182 TO FACILITY OPERATING LICENSE NO. DPR-59

POWER AUTHORITY OF THE STATE OF NEW YORK

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

DOCKET NO. 50-333

1.0 INTRODUCTION

By letter dated May 21, 1992, the Power Authority of the State of New York (the licensee) submitted a request for changes to the James A. FitzPatrick Nuclear Power Plant, Technical Specifications (TS). The requested changes would remove the reference to the reactor vessel head spray portion of the Residual Heat Removal (RHR) system in Table 4.2-1, entitled, "Minimum Test Calibration Frequency for Primary Containment Isolation Systems (PCIS)." The head spray mode of RHR is no longer in use at FitzPatrick.

2.0 EVALUATION

The purpose of the head spray mode of the RHR system is to spray water in the reactor vessel head area at low reactor pressures during shutdown cooling to enhance vessel head cooling. FitzPatrick was designed with this capability when it was anticipated that vessel cooldown and head removal would be the critical path for beginning a refueling outage. At FitzPatrick, head spray is not used, and head cooldown is not on the outage critical path.

Head spray mode of RHR is an optional capability and credit is not taken for it in the accident analysis. The objective of the RHR system is to restore and maintain the coolant inventory in the reactor vessel so that the core is adequately cooled after a loss-of-coolant accident (LOCA). The head spray mode of RHR is not used to restore or maintain reactor vessel water level after a LOCA. The low pressure coolant injection (LPCI) mode of RHR performs this function. The head spray mode may be used to enhance the RHR system in the shutdown cooling mode. The design of the RHR system is adequate for plant cooldown without the head spray. The head spray mode of RHR is not described in the basis for any Technical Specifications (TS). This subsystem is not required to perform any safety-related functions.

Head spray mode of RHR is mentioned in Emergency Operating Procedure (EOP)-10, "Primary Containment Flooding," as one of ten available sources of water that may be used to maintain containment water level between 85 ft. and 105 ft. The head spray mode of RHR will be removed as an available source of water from EOP-10 when this modification is completed.

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During the 1992 refueling outage, the head spray portion of the RHR system is being deactivated and portions of the piping are being removed. The spray piping running through the drywell penetration thermal sleeve will be cut near both ends of the penetration, and a cap installed on each end of the pipe. This will be the primary containment boundary for the penetration. The existing local leak-rate test (LLRT) connection on the remaining pipe located just outside the drywell, will be retained for use during preoperational testing of the new end caps prior to reactor startup to ensure that the penetration is intact. The piping at the vessel head will be disconnected from the flanged elbow attached to the spray nozzle connection on the reactor vessel head. An ASTM blind flange will be installed on the retained flanged elbow to ensure reactor vessel pressure integrity. All retained piping will be seismically analyzed to ensure system integrity.

Table 4.2-1 of the TS requires a logic system functional test of the primary containment isolation valves associated with the head spray mode of RHR. As stated above, the head spray mode of RHR will no longer be installed at FitzPatrick, including the containment isolation valves. Therefore, performing the required surveillance is no longer applicable. Hence, the licensee's proposal to delete the RHR head spray mode from Table 4.2-1 is acceptable. The as-left configuration will be tested via the existing LLRT connection to ensure the capped drywell penetration is intact.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New York State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change the surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (57 FR 24676). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Date: July 13, 1992